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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,349	01/31/2004	Jiansheng Tang	9257USA-NONP	8362

7590

09/11/2006

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EXAMINER
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EGWIM, KELECHI CHIDI

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/769,349

Applicant(s)

TANG ET AL.

Examiner

Dr. Kelechi C. Egwim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-18,20,21,25,26 and 29-47 is/are pending in the application.
- 4a) Of the above claim(s) 3-6,8-17 and 30-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,18,20,21,25,26 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Due to amendments and persuasive arguments by applicant, the previous rejections of record based on Brenner et al. have been overcome and are hereby withdrawn.

### ***Election/Restrictions***

2. This application contains claims 3-6, 8-17 and 30-47 drawn to an invention nonelected with traverse in Paper No. 092605. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 18, 20, 21, 25, 26 and 29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, 35 U.S.C. 103(a) as being unpatentable over Kitani (JP 59067021).

In the abstract, Kitani teach expandable polystyrene particles for foam articles from molding coated with a coating composition comprising polyethylene glycol, polyethylene polyolefin wax and calcium stearate.

While does not expressly teach improved leakage resistance in the molded product, it is reasonable that the moulded article form the coated expandable polystyrene particles Kitani would possess the presently claimed properties since the composition of Kitani's expandable polystyrene particles is essentially the same as the claimed composition and the USPTO does not have at its disposal the tools or facilities deemed necessary to make physical determinations of the sort. In any event, an otherwise old composition is not patentable regardless of any new or unexpected properties. In re Fitzgerald et al , 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112 - § 2112.02.

Even if assuming that the prior art references do not meet the requirements of 35 U.S.C. 102, it would still have been obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at the same inventive composition because the disclosure of the inventive subject matter appears within the generic disclosure of the prior art.

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6. Claims 1, 2, 18, 20, 21, 25, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al. (JP 60203648) independently in combination with either of Matsui et al. (JP 60203647) or Ikeda et al. (JP 04057837).

In the abstract, Matsui et al. ('648) teach expandable polystyrene particles impregnated with a blowing (expanding) agent, for forming foam articles in a molding process, coated with a coating composition comprising 0.005 to 100 parts by weight, based on 100 parts by weight of the polystyrene polymer, of polyethylene glycol having an average molecular weight ranging from about 100 about 1000;

Matsui et al. ('48) differ from the claimed invention in that do not appear to incorporate the polyethylene wax and the fatty acid metal salt in to the coating composition. However, it is well known in the art to incorporate both polyethylene wax and fatty acid metal salt into coating composition for expandable polystyrene particles, for the purpose of preventing blocking of the resin granules at the time of pre-foaming and reducing the cooling time at the time of foaming and moulding, such as taught by Matsui et al. ('47--see abstract) and to providing improved fusion among the expanded particles while having improved resistance to leakage in the moulded products, such as taught by Ikeda et al. (see abstract)

In the abstract, each of Matsui et al. ('47) and Ikeda et al., independently, teach expandable polystyrene particles impregnated with a blowing (expanding) agent, for forming foam articles in a molding process, coated with a coating composition comprising polyethylene wax (MW's up about 900) and a metal salt of higher fatty acids.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to incorporate the combination of polyethylene wax and a metal salt of higher fatty acids in the pre-mold expandable polystyrene particles of Matsui et al. ('48) in order to obtain the advantages taught by Matsui et al. ('47) or Ikeda et al., motivated by a reasonable expectation of success.

7. Claims 1, 2, 18, 20, 21, 25, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakoda et al. (USPN 6,277,491) or Imai et al. (JP 2002338725) independently in combination with either of JP 53109565, JP53127567, Matsui et al. (JP 60203647) or Ikeda et al. (JP 04057837).

In col. 11, lines 35-67, Sakoda et al. teach expandable polystyrene particles impregnated with a blowing agent, for forming foam articles in a molding process, coated with a coating composition comprising 0.05 – 0.5% of 0.005 to 100 parts by weight, based on 100 parts by weight of the polystyrene polymer, of a metal salt of higher fatty acids and about 0.2% liquid polyethylene glycol (exemplified at about 0.02%)

In ¶ 8 and 19, Imai et al. teach expandable polystyrene particles impregnated with a blowing agent, for forming foam articles in a molding process, coated with a coating composition comprising 0.2 to 0.5 parts by weight, based on 100 parts by weight of the polystyrene particles, of zinc stearate, combined with polyethylene glycol as an antistatic agent.

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Sakoda et al. or Imai et al. differ from the claimed invention in that don't recite polyethylene wax as an additive in the coating. However, it is well known in the art to incorporate polyethylene wax into coating composition for expandable polystyrene particles, for reasons taught Matsui et al. or Ikeda et al., above.

Further, it is well known in the art to incorporate polyethylene wax into coating composition for expandable polystyrene particles, in order to aid in the evaporation of the blowing agent during moulding, such as taught by JP 53109565, JP53127567 (see abstracts).

In the abstract, each of JP 53109565, JP53127567, independently, teach expandable polystyrene particles impregnated with a blowing (expanding) agent, for forming foam articles in a molding process, coated with a coating composition comprising polyethylene wax (MW's about 100).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to incorporate polyethylene wax into the pre-mold expandable polystyrene particles of Sakoda et al. or Imai et al., in order to obtain the advantages taught by JP 53109565, JP53127567, Matsui et al. ('47) or Ikeda et al., motivated by a reasonable expectation of success.

### ***Response to Arguments***

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

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9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (571) 272-1099. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**KELECHI C. EGWIM PH.D.**  
**PRIMARY EXAMINER**

KCE

A handwritten signature in black ink, appearing to be 'KCE' followed by a stylized flourish.